58CLA
Low−Boy Oil Furnace
Input Capacities: 70,000 thru 154,000 BTUH
Series 140

Carrier®
Turn to the Experts℠

Product Data

A06626

THE LATEST IN OIL FURNACE TECHNOLOGY

The model 58CLA combines high efficiency and quiet operation with oil heating technology. The 58CLA is available in 2 sizes. Each size can be fired at 3 different rates by a simple nozzle and pump pressure change. Unit 58CLA105 covers input ranges from 70,000 to 105,000 BTUH. Unit 58CLA120 covers input ranges from 119,000 to 154,000 BTUH. The furnace design is a low-boy style for upflow applications, where overhead space is limited.

The components of the 58CLA are the finest in the industry. The unit uses a Beckett oil burner with a UTEC ignition controller, “clean-cut” oil pump and fan cycler timer.

The 58CLA is a standard part of a quality-built home. This high efficiency furnace will provide years of quality service to home builders and homeowners alike.

As with other Carrier furnaces, this model is designed to work as part of a total home comfort system which includes elements for cooling, air cleaning, humidification, ventilation, and zoning.

58CLA FEATURES/BENEFITS

Beckett Oil Burner and UTEC Controls

- High quality Beckett oil burner with “clean-cut” pump allows safe and efficient combustion of oil.
- UTEC ignition control and fan timer board provide reliable operation and easy connection of thermostat and accessory wiring.

Casing

- Made of 18-gauge painted steel for years of durability.
- Cabinet features an insulated enclosure for the burner and controls.

Insulation and Soundproofing

- Unique sound trap along with insulated walls efficiently captures most combustion and vibration noise to make this unit one of the quietest on the market.

Combustion Products Venting

- Rear flue outlet.
- Unit may be vented using Type L vent material and a factory-built metal or masonry chimney.
- Unit may also be sidewall vented with an approved power venter.

Adjustable Blower Speed

- 4-speed blower for precise airflow selection of heating or cooling operation.

Constant Low-Speed Blower Switch

- Allows continual low-speed air circulation through the home to maximize comfort while maintaining efficiency.
- Air is constantly filtered and stagnant air is avoided.
- This option can be controlled by the homeowner.

Combustion Chamber/Heat Exchanger

- Composed mainly of stainless and aluminized steel, the unique combination combustion chamber/heat exchanger resists corrosion, overheating, and deterioration.
- Heat transfer properties make it highly efficient.
- All seams are tightly welded for leak-free operation.

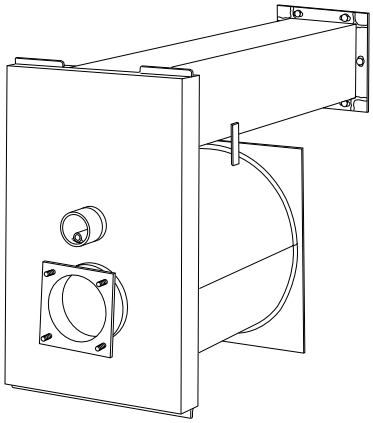
Certifications

- 58CLA unit is CSA certified.
- The efficiency is GAMA efficiency rating certified.

Warranties

- Limited Lifetime Warranty on combustion chamber/ heat exchanger.
- Five-year Warranty on Beckett burner and remaining components.

Contact your dealer for details.



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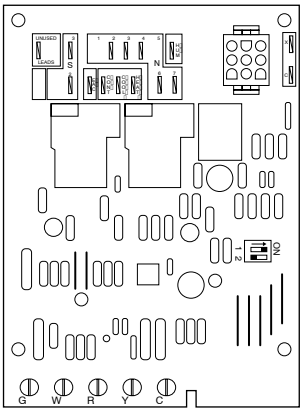
COMBUSTION CHAMBER/
HEAT EXCHANGER



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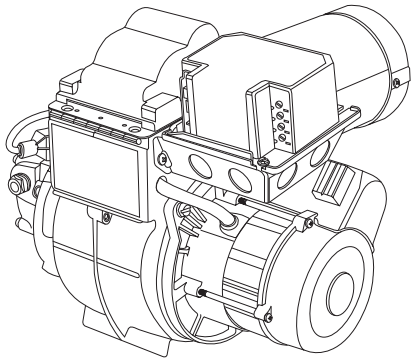
CONTROL CENTER



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OIL BURNER

MODEL NUMBER NOMENCLATURE

58CLA	105	140	12
Product Type	Input Capacity	Series	Cooling Size Airflow (Nominal 400 CFM per 12,000 BTUH Cooling)
Beckett Burner Low-Boy Oil Furnace	105 - 70,000 BTUH with 0.50 gph nozzle @ 100 psi 91,000 BTUH with 0.55 gph nozzle @ 140 psi 105,000 BTUH with 0.65 gph nozzle @ 130 psi	140	12 - 1200 CFM
	120 - 119,000 BTUH with 0.75 gph nozzle @ 130 psi 140,000 BTUH with 0.85 gph nozzle @ 140 psi 154,000 BTUH with 0.85 gph nozzle @ 170 psi		20 - 2000 CFM

B140.0–B140.4–UL727

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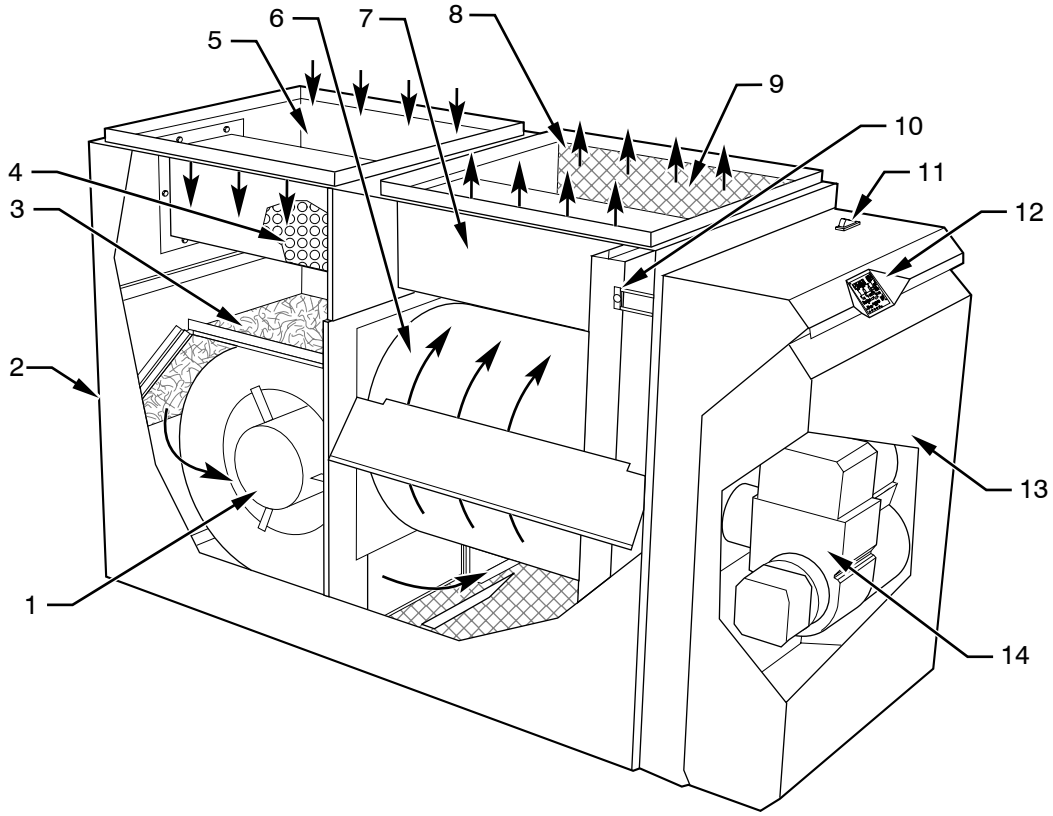

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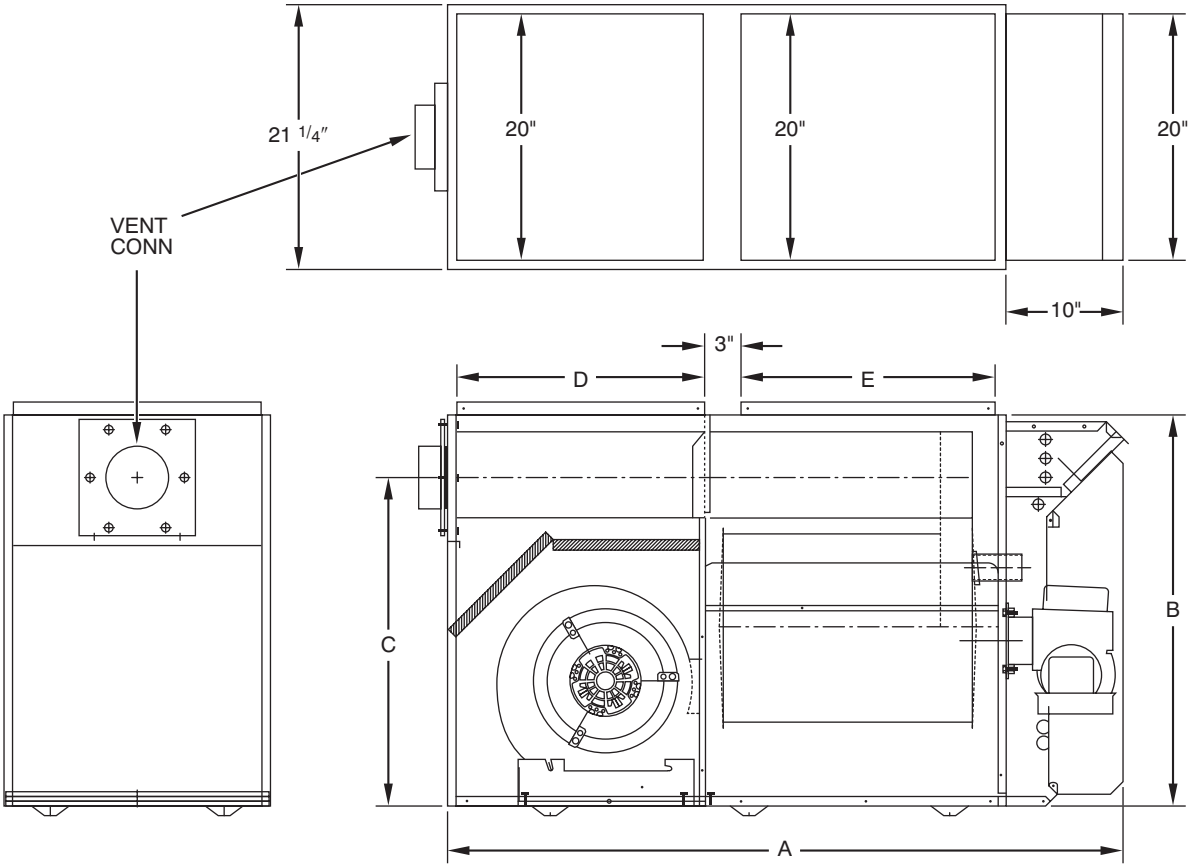
1. Heavy-duty blower circulates air across the heat exchanger to transfer heat into the home.
2. Access door to air filters and blower.
3. Air filters
4. Unique silencer system controls combustion noise.
5. Return-air plenum
6. Stainless steel combustion chamber
7. Heat exchanger designed and shaped to efficiently transfer heat from furnace into the home.
8. Supply-air plenum
9. Fully insulated internal walls to minimize heat loss.
10. High limit control to prevent overtemperature.
11. Manual switch to allow user control of constant low-speed blower operation.
12. Adjustable electronic fan timer control (inside) has low voltage electrical terminal strip for easy connection of thermostat, cooling control, electronic air cleaner, and humidifier.
13. Aesthetic removable cover. Hides and protects burner and controls.
14. High-performance oil burner

PHYSICAL DATA



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DIMENSIONS (IN.)

UNIT SIZE	UNIT DIMENSIONS			FLUE HEIGHT	RETURN OPENING	SUPPLY OPENING	VENT CONN
	Width	Depth	Height				
		A	B	C	D	E	
105–12	21–1/4	53–3/4	31–1/2	26–1/2	20	20	5
120–20	21–1/4	60–3/16	34–3/4	28–3/8	22	24	6

SPECIFICATIONS

RATINGS AND PERFORMACE

UNIT SIZE	105–12			120–20		
INPUT (BTUH)*	70,000	91,000	105,000	119,000	140,000	154,000
HEATING CAPACITY	57,000	74,000	85,000	97,000	115,000	126,000
NOZZLE	0.50 – 70W	0.55 – 70B	0.65 – 70B	0.75 – 70B	0.85 – 70B	0.85 – 70B
PRESSURE (PSIG)	100	140	130	130	140	170
FIRING RATE (GPH)	0.50	0.65	0.75	0.85	1.00	1.10
AFUE%	80.5	80.5	80.5	80.0	80.0	80.0
OIL PUMP STAGES	1	1	1	1	1	1
HEATING TEMP RISE °F	55–85	55–85	55–85	55–85	55–85	55–85
COOLING CFM @ 0.5–IN. WC STATIC PRESSURE	1250	1250	1250	1865	1865	1865
HEATING CFM @ 0.2–IN. WC STATIC PRESSURE	840	1130	1425	1555	1890	2080
RECOMMENDED HEATING BLOWER SPEED	Med–Low	Med–High	High	Med–Low	Med–Low	High
BURNER MODEL (3450 RPM)†	BECKETT AFG–F3	BECKETT AFG–F3	BECKETT AFG–F3	BECKETT AFG–F3	BECKETT AFG–F3	BECKETT AFG–F6

58CLA

* Capacity and AFUE in accordance with U.S. Government DOE test procedures.
† Beckett AFG–F6 requires field supplied and replacement burner firing head.
– Shaded cells are as Factory Shipped.

UNIT SIZE	105–12	120–20
DIRECT–DRIVE MOTOR Hp (PSC)	1/3	3/4
MOTOR FULL LOAD AMPS	6.2	9.5
RPM (Nominal) – SPEEDS	1075–4	1075–4
BLOWER WHEEL DIAMETER X WIDTH (In.)	10 x 8	12 x 10
SHIPPING WEIGHT (LB)	235	260
FILTER SIZE (In.) – (Disposable)	(2) 12 x 20 x 1	(2) 16 x 20 x 1

AIR DELIVERY -CFM (WITH FILTERS)

UNIT SIZE	BLOWER MOTOR HP	SPEED	EXTERNAL STATIC PRESSURE (in wc)							
			0.2	0.3	0.4	0.5	0.6	0.7	0.8	0.9
105–12	1/3 PSC	High	1425	1350	1305	1250	1170	1030	925	805
		Med–High	1130	1045	1000	950	885	820	745	670
		Med–Low	840	810	770	740	685	635	580	500
		Low	725	730	740	745	730	715	690	665
120–20	3/4 PSC	High	2080	2040	1965	1865	1700	1575	1475	1335
		Med–High	1890	1860	1770	1675	1550	1450	1330	1215
		Med–Low	1555	1475	1395	1320	1210	1135	1050	940
		Low	1220	1165	1080	1000	925	855	780	655

ELECTRICAL DATA

UNIT SIZE		105–12	120–20
UNIT VOLTS–HERTZ – PHASE		115 – 60 – 1	115 – 60 – 1
OPERATING VOLTAGE RANGE (Min–Max)*		104 – 132	104 – 132
MAXIMUM UNIT AMPS		12.2	15.7
MINIMUM WIRE SIZE (AWG)		14	12
MAXIMUM WIRE LENGTH (Ft)†		26	26
MAXIMUM FUSE SIZE OR CKT BKR (Amps)‡		15	20
TRANSFORMER (24v)		40va	40va
EXTERNAL CONTROL POWER AVAILABLE	Heating	40va	40va
	Cooling	30va	30va
AIR CONDITIONING RELAY		Standard	Standard

* Permissible limits of the voltage range at which the unit will operate satisfactorily.
† Length is a measured one way along wire path between unit and service panel for maximum 2% voltage drop.
‡ Time–delay fuse type is recommended.

SPECIFICATIONS (cont)

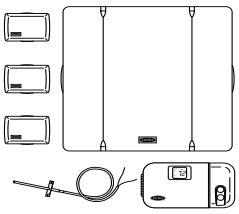
CLEARANCE TO COMBUSTIBLES

UNIT APPLICATION		LOW–BOY
SIDES	Furnace	1
	Supply Plenum and Warm–Air Duct Within 6 Ft of Furnace	1
BACK	Service Clearance	19
TOP	Furnace Casing or Plenum	2
	Horizontal Warm–Air Duct Within 6 Ft of Furnace	2
FLUE PIPE	Horizontally or Below Pipe	4
	Vertically Above Pipe	9
FRONT		8
BOTTOM*		0

*Floor may be combustible.

NOTE: Adequate service clearance should be provided over and above these dimensions as required.

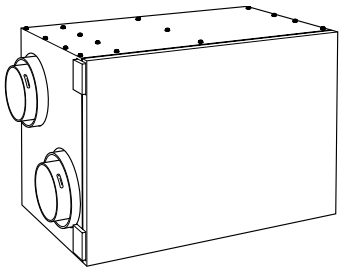
ACCESSORIES



A97432

CONTROLS: THERMOSTATS AND ZONING

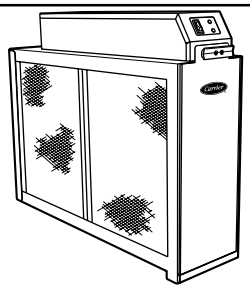
Available in programmable and non–programmable models, Carrier thermostats maintain a constant, comfortable temperature level in the home.
For the ultimate in home comfort, Carrier's 2, 4, and 8–zone systems allow temperature control of individual "zones" of the home. This is accomplished through a series of electronic dampers and remote room sensors. The 4–zone system is shown.



A94336

ENERGY/HEAT RECOVERY VENTILATOR

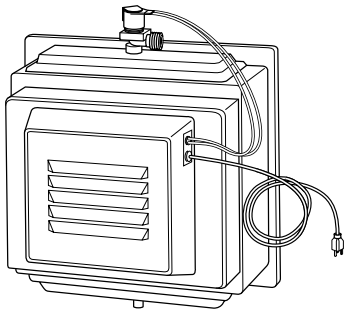
Carrier's energy or heat recovery ventilators exhaust stale indoor air and provide fresh outdoor air to the home while minimizing heat loss and humidity level. Especially useful for today's tighter constructed houses.
Energy recovery ventilator is shown.



A97380

ELECTRONIC OR MECHANICAL AIR CLEANER

Cleans the air of smoke, dirt, and many pollens commonly found. Saves decorating and cleaning expenses by keeping carpets, furniture, and drapes cleaner.
Electronic air cleaner is shown.



A91365

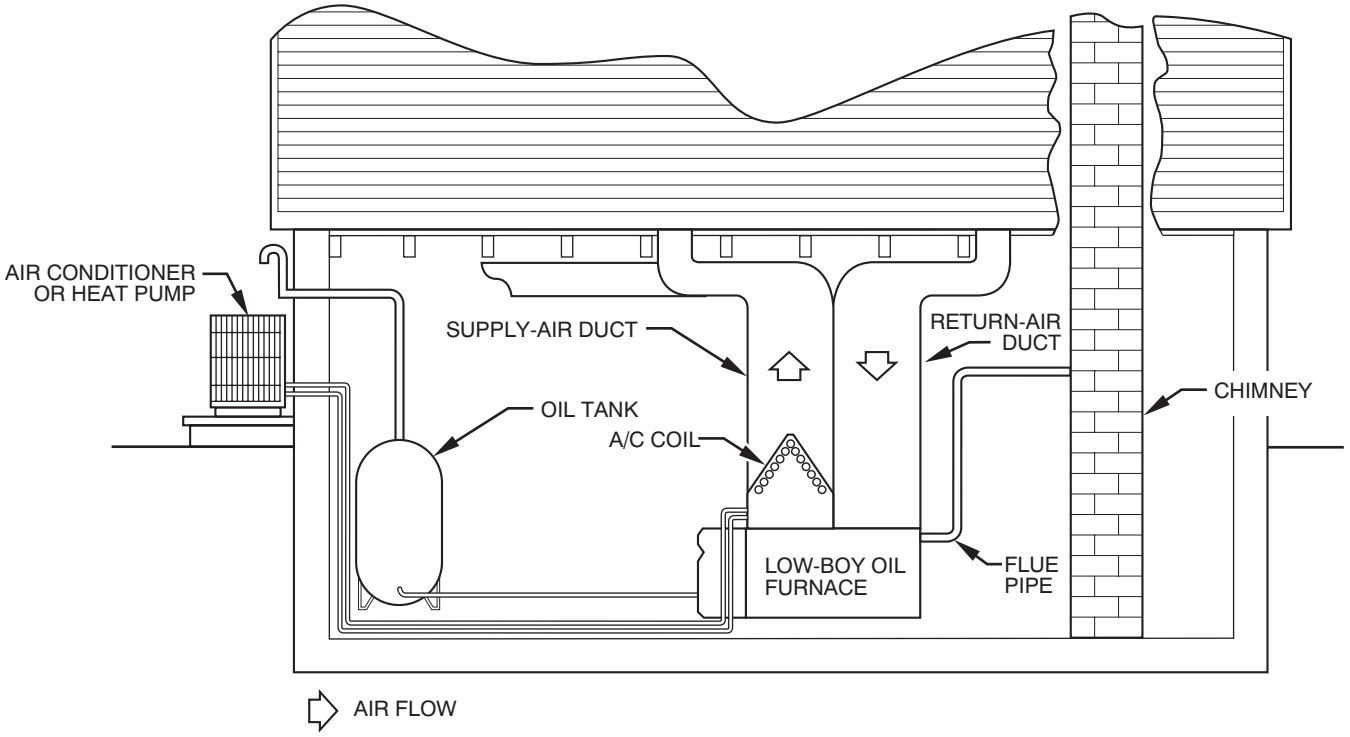
HUMIDIFIER

By adding moisture to winter–dry air, Carrier humidifier can often improve comfort and keeps woodwork, wallpaper, and paint in better condition. Moisturizing household air also helps to retain normal body heat and provides comfort at lower temperatures.

ACCESSORIES (cont)

FURNACE ACCESSORIES	
KLABV0201DET	Blocked Vent Shutoff Kit
PROGRAMMABLE THERMOSTAT SELECTION	
TSTATCCSAC01	Thermostat, Manual Changeover, 5–2 Day Programmable, °F/°C, 1–Stage Heat/1–Stage Cool
TSTATCCSHP01	Thermostat, Manual Changeover, 5–2 Day Programmable, °F/°C, 2–Stage Heat/1–Stage Cool
TSTATCCPB101	Thermostat, Programmable, °F/°C, Simple 1 Day Programmable, T2 style
TSTATCCPB501	Thermostat, Programmable, °F/°C, 5–2 Day Programmable, Super T2 style
TSTATCCPDF01–B	Dual Fuel Thermostat, Outdoor Temperature Sensor Included
NON–PROGRAMMABLE THERMOSTAT SELECTION	
TSTATCCNB001	Thermostat, Non–Programmable, °F/°C, 1–Stage Heat/1–Stage Cool, T2 Style
TSTATCCN2W01	Thermostat, Non–Programmable, 2–Wire, °F/°C, Heat Only or Cool Only, T2 style
TSTATCCNQ001	Thermostat, Auto Changeover, N–P, °F/°C, 1–Stage Heat/1–Stage Cool, battery or 5 wire
ZONING CONTROL SELECTION	
ZONECC2KIT01–B	Comfort Zone II–B – 2 Zone Kit/Temperature and Humidity Control
ZONECC4KIT01–B	Comfort Zone II–B – 4 Zone Kit/Temperature and Humidity Control
ZONECC8KIT01–B	Comfort Zone II–B – 8 Zone Kit/Temperature and Humidity Control
HEALTHY HOME SOLUTIONS	
EACBAXCC0014	Electronic Air Cleaner – 120V, 1400 CFM
EACBAXCC0020	Electronic Air Cleaner – 120V, 2000 CFM
EACBAXCC2020	Electronic Air Cleaner – 240V, 2000 CFM
HUMCCSBP2312	Humidifier – 12 g./day, 24V Standard, Small Bypass
HUMCASBP2312	Humidifier – 12 g./day, 24V Automatic, Small Bypass
HUMCCLBP2317	Humidifier – 17 g./day, 24V Standard, Large Bypass
HUMCALBP2317	Humidifier – 17 g./day, 24V Automatic, Large Bypass
HUMCCLFP1318	Humidifier – 18 g./day, 24V Standard, Fan Powered
HUMCALFP1318	Humidifier – 18 g./day, 24V Automatic, Fan Powered
HRVCCSHA1100	Heat Recovery Ventilator – Small Horizontal Unit, 100 CFM
HRVCCSVA1100	Heat Recovery Ventilator – Small Vertical Unit, 100 CFM
HRVCCLHA1150	Heat Recovery Ventilator – Large Horizontal Unit, 150 CFM
HRVCCLHA1250	Heat Recovery Ventilator – Large Horizontal Unit, 250 CFM
HRVCCSVU1150	Heat Recovery Ventilator – Small Vertical Unit, 150 CFM
HRVCCSVU1200	Heat Recovery Ventilator – Small Vertical Unit, 200 CFM
HRVCCLVU1150	Heat Recovery Ventilator – Large Vertical Unit, 150 CFM
HRVCCLVU1200	Heat Recovery Ventilator – Large Vertical Unit, 200 CFM
HRVCCLVU1330	Heat Recovery Ventilator – Large Vertical Unit, 330 CFM
ERVCCSHA1100	Energy Recovery Ventilator – Small Horizontal Unit, 100 CFM
ERVCCSVA1100	Energy Recovery Ventilator – Small Vertical Unit, 100 CFM
ERVCCLHU1150	Energy Recovery Ventilator – Large Horizontal Unit, 150 CFM
ERVCCLHU1200	Energy Recovery Ventilator – Large Horizontal Unit, 200 CFM
EZXCABCC1016	Media Filter Cabinet – 1600 CFM (Replacement Filter: EXPXXFIL0016)
EZXCABCC1020	Media Filter Cabinet – 2000 CFM (Replacement Filter: EXPXXFIL0020)

TYPICAL INSTALLATION



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